

# http://www.mn-arts.org/

## February 2016 Edition

## From The President

As mentioned at the last meeting, our next meeting time together is dedicated to our semi-annual Build-A-Thon (March 5<sup>th</sup>). Even though I have missed a few of these events myself, I have always dedicated the day to my own electronics work at home. We are a technical builders club after all because we all share a love for the experience of bringing something new into existence from nothing more than an idea that appeals to us.

If you have items to repair, just tinker with or build (of course), feel free to bring those items. I plan to lug a few test equipment items to our event in case a signal source or an oscilloscope are needed. I'll be sending out an email to the reflector to see if anyone is planning on bringing food or snack items to share, but as usual feel free to do so if you are so inclined. I look forward to what I am sure will be another successful club event.

Lastly, a big thank-you for all of your wonderful ideas for the Mid-Winter Madness event on March 12th, in just a few weeks, as well as for future technical topics for presentations.

I continue to be impressed with both the breadth and depth of knowledge and ideas in our club.

73, de Russ, K0WFS

## **February Meeting Minutes**

Russ Ramirez, K0WFS called the meeting to order at 1:00 PM. 20 were in attendance.

Introductions were made all around. Everyone gave their name, call, QTH and the favorite place they have visited.

Meeting minutes from January 2016 were approved.

#### Old Business:

No old business

#### **New Business:**

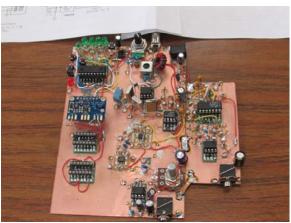
- Reminder that Mid-Winter Madness will be coming up on March 12. The club will get a table as in past years. Members were encouraged to bring their projects for display. 3 X 5 cards were made to hand out at the event. Samples were passed around to those in attendance.
- The upcoming Build-a-thon was discussed. Russ, K0WFS, will send

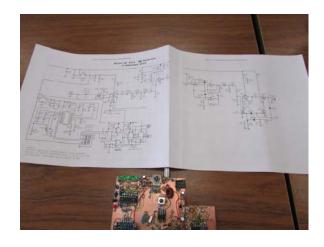
out a link to the various kit suppliers for the members to consider. Dave Kent, W0RU, suggested that the "Controlled Impendence Antenna" by Ken Britain might be an interesting project. He passed around the designs and specifications.

### **Show & Tell**

**Craig Johnson**, AA0ZZ, brought in the latest version of his AM transceiver design. He is now ready to get some boards produced for it. He commented that the LM386 was found to be quite noisy and replaced it with a TL972 which was much quieter.

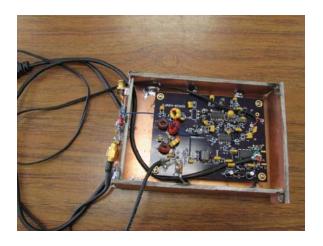






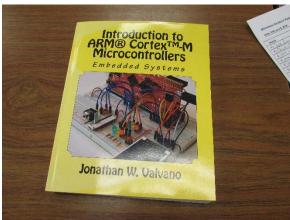
John Krawczak, KJ0P, brought in the SDR Receiver he built at the recent Build-a-thon. Previously he had installed a 30 db RF Amplifier on the front end which greatly improved its sensitivity. This month he brought the SDR back with a preamp he had recently constructed. This is a two stage amplifier that provides about 20 db gain when powered from the USB 5V supply. With a little higher supply voltage the gain will go to about 25 db. John also played back some audio clips he had recorded using the receiver. Additionally, he brought in a nice 1.5 KW dummy load he recently got at an auction for \$15. It has a nice ceramic resistor for the load.





**William Roos,** KC0NVM, brought in his copy of "Introduction to ARM Cortex". This is the text he is using for an on line class he is taking.





**Bruno Bittner**, KD0SKS, brought in a Kiethly meter for anyone that could put it to use.



**Jeremy Mooney**, KC0LDI, brought in a Get Chip board with Wi-Fi and Bluetooth built in. He had talked about this at the previous meeting and now had a device to show everyone.





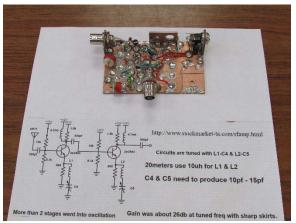
**Steve Ulrich**, NW0C, brought in some parts he has been gathering for a few projects. They included a nice cross hair SWR meter (100 ua movements), a National reduction drive and some audio boards.





**Mike Burk**, KD0JXE, showed us a 26 db preamp he had recently built. He also showed us a dipole he had constructed for experimenting with impedance. He recently obtained an antenna analyzer and has been putting it to good use.





**Dave Kent**, W0RU, brought in his copy of "Antenna Physics" which was recently released by the ARRL. He recommended it for those interested in learning more about antenna operation.



## **February Presentation**

Mert Nellis, W0UFO, spoke on Understanding Magnetics. Mert discussed the various kinds of inductors and how to calculate the flux density. He walked us through the necessary calculations and how the use of a spreadsheet could help plot the operating characteristics. He also showed us a very useful program "Mini Ring Core Calculator" Great presentation!!



Respectfully submitted, Steve, NW0C

#### Club Officers:

President: Russ Ramirez/K0WFS
Vice Pres: Jeremy Mooney/KC0LDI
Secretary: Steve Ulrich/NW0C
Treasurer: Paul Bushouse/N0TYE
At Large: Craig Johnson/AA0ZZ

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